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Group Art Unit: 3733

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Amendments to the Claims

1. (Currently Amended) A spinal anchoring device, comprising:

a bone-engaging member adapted to engage bone, the bone-engaging member having a head formed thereon;

a U-shaped receiver member movably coupled to the head of the bone-engaging member, the U-shaped receiver member being adapted to seat a spinal fixation element; and

a fastening element adapted to mate to the U-shaped receiver member to lock a fixation element relative to the U-shaped receiver member while allowing the U-shaped receiver member to move freely relative to the bone-engaging member.

- 2. (Withdrawn) The spinal anchoring device of claim 1, wherein the bone-engaging member is pivotally coupled to the <u>head of the U-shaped</u> receiver member such that the U-shaped receiver member pivots along an axis relative to the bone-engaging member.
- 3. (Withdrawn) The spinal anchoring device of claim 2, further comprising a pin member extending through a distal end of the <u>U-shaped</u> receiver member and through a <u>proximal end</u> the head of the bone-engaging member for pivotally mating the U-shaped receiver member and the bone-engaging member.
- 4. (Withdrawn) The spinal anchoring device of claim 2, further comprising a surface coating on portions of the bone-engaging member and the U-shaped receiver member that come into contact with one another.
- 5. (Withdrawn) The spinal anchoring device of claim 4, wherein the surface coating is formed from a material selected from the group consisting of titanium oxide, nitride, and a cobalt-chrome alloy.
- 6. (Previously Presented) The spinal anchoring device of claim 1, wherein the bone-engaging member is polyaxially coupled to the U-shaped receiver member.

- 7. (Currently Amended) The spinal anchoring device of claim 6, wherein the <u>head on the</u> bone-engaging member includes a <u>comprises a</u> spherical head <u>that is</u> formed on a proximal end thereof, and wherein the U-shaped receiver member includes a cavity formed in a distal portion thereof and adapted to polyaxially seat the spherical head of the bone-engaging member.
- 8. (Previously Presented) The spinal anchoring device of claim 7, wherein the U-shaped receiver member includes a recess formed in a proximal portion thereof and adapted to seat a spinal fixation element, the recess being spaced apart and separate from the cavity in the distal portion of the U-shaped receiver member.
- 9. (Currently Amended) The spinal anchoring device of claim 1, wherein the U-shaped receiver member includes a distal portion movably mated to the <u>head of the</u> bone-engaging member, and a proximal portion having a recess formed therein for seating a spinal fixation element.
- 10. (Previously Presented) The spinal anchoring device of claim 9, wherein the fastening element is adapted to mate to the proximal portion of the U-shaped receiver member to engage and lock a spinal fixation element within the recess in the U-shaped receiver member.
- 11. (Previously Presented) The spinal anchoring device of claim 10, wherein the fastening element comprises a set screw adapted to mate with corresponding threads formed within at least a portion of the recess in the U-shaped receiver member.
- 12. (Currently Amended) A spinal anchoring system, comprising:
 - a spinal fixation element;
- a spinal anchoring device having a bone-engaging member with a head formed thereon and a U-shaped receiver member having a cavity that freely movably coupled to seats the head of the bone-engaging member and that is configured to receive the spinal fixation element; and
- a fastening element receivable within the U-shaped receiver member of the spinal anchoring device and being configured, when mated to the U-shaped receiver member, to lock the spinal fixation element to the spinal anchoring device while allowing free movement of the U-shaped

receiver member relative to the bone-engaging member.

- 13. (Withdrawn) The spinal anchoring system of claim 12, wherein the U-shaped receiver member is pivotally coupled to the <u>head of the</u> bone-engaging member.
- 14. (Withdrawn) The spinal anchoring system of claim 13, further comprising a bearing element formed between the U-shaped receiver member and the bone-engaging member for allowing pivotal movement of the U-shaped receiver member relative to the bone-engaging member.
- 15. (Withdrawn) The spinal anchoring system of claim 14, wherein the bearing element includes a surface coating adapted to facilitate movement of the U-shaped receiver member relative thereto.
- 16. (Withdrawn) The spinal anchoring system of claim 15, wherein the surface coating is formed from a material selected from the group consisting of titanium oxide, nitride, and a cobalt-chrome alloy.
- 17. (Previously Presented) The spinal anchoring system of claim 12, wherein the bone-engaging member is polyaxially coupled to the U-shaped receiver member.
- 18. (Currently Amended) The spinal anchoring system of claim 17, wherein the <u>head on the</u> bone-engaging member <u>includes comprises</u> a spherical head formed thereon, and wherein the U-shaped receiver member includes a cavity formed therein for receiving the spherical head.
- 19. (Currently Amended) The spinal anchoring system of claim 12, wherein the <u>head of the</u> bone-engaging member is coupled to a distal end of the U-shaped receiver member, and the fastening element is matable to a proximal end of the U-shaped receiver member.
- 20. (Cancelled)
- 21. (Previously Presented) The spinal anchoring system of claim 19, wherein the fastening element includes threads formed thereon for mating with corresponding threads formed within at

least a portion of a U-shaped recess formed in the U-shaped receiver member.

- 22. (Original) The spinal anchoring system of claim 12, wherein the spinal fixation element is selected from the group consisting of a cable, a tether, a rigid spinal rod, and a flexible spinal rod.
- 23. (Original) The spinal anchoring system of claim 12, wherein the spinal fixation element is formed from a material selected from the group consisting of stainless steel, titanium, non-absorbable polymers, absorbable polymers, and combinations thereof.
- 24. (Previously Presented) A method for correcting spinal deformities, comprising: implanting a plurality of anchoring devices into adjacent vertebrae in a spinal column, each anchoring device including a bone-engaging member that is fixedly attached to the vertebra and a U-shaped receiver member having a cavity that is freely movable seats a head formed on the bone-engaging member relative to such that the U-shaped receiver member is freely movable relative to the bone-engaging member and the vertebra;

coupling a spinal fixation element to the U-shaped receiver member on each anchoring device such that the fixation element extends between each of the adjacent vertebrae;

locking the spinal fixation element to the U-shaped receiver member on each anchoring device to maintain the adjacent vertebrae at a fixed distance relative to one another while allowing free movement of each U-shaped receiver member relative to each bone-engaging member.

- 25. (Withdrawn) The method of claim 24, wherein the U-shaped receiver member of at least one of the anchoring devices is movable along a single plane relative to the bone-engaging member.
- 26. (Previously Presented) The method of claim 24, wherein the bone-engaging member of at least one of the anchoring devices is polyaxially coupled to the U-shaped receiver member.
- 27. (Currently Amended) The method of claim 24, wherein the <u>head on the</u> bone-engaging member <u>includes comprises</u> a spherical head formed on a proximal end thereof, and wherein the U-shaped receiver member includes a cavity formed in a distal portion thereof and adapted to

polyaxially seat the spherical head of the bone-engaging member.

28. (Cancelled)

- 29. (Currently Amended) The method of claim 24, wherein the U-shaped receiver member includes a distal portion movably mated to the <u>head of the</u> bone-engaging member, and a proximal portion having a recess formed therein for seating the spinal fixation element.
- 30. (Previously Presented) The method of claim 24, wherein the step of locking comprises applying a fastening element to each U-shaped receiver member to engage and lock the spinal fixation element therein.
- 31. (Original) The method of claim 24, wherein the spinal fixation element is selected from the group consisting of a cable, a tether, a rigid spinal rod, and a flexible spinal rod.
- 32. (Previously Presented) A spinal anchoring device, comprising:
 - a bone screw having a head and a shank;
- a U-shaped receiver member having a distal seat for receiving at least a portion of the head of the bone screw and a proximal seat formed on an internal surface thereof for receiving a spinal fixation rod; and
- a fastening element adapted to mate to the U-shaped receiver member to seat a spinal fixation rod in the proximal seat, the proximal seat being spaced a distance apart from the distal seat sufficient to allow polyaxial motion of the bone screw relative to the U-shaped receiver member upon seating of the spinal fixation rod in the proximal seat by the fastening element.
- 33. (Previously Presented) The spinal anchoring device of claim 32, wherein the U-shaped receiver member includes a recess extending from a proximal opening in the U-shaped receiver member, a distal portion of the recess defining the proximal seat for the spinal fixation rod.
- 34. (Cancelled).

35. (Previously Presented) The spinal anchoring device of claim 33, wherein the fastening element is a set screw having external threads for engaging internal threads provided in the recess.